

### REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 3-7 and 10-14 are pending in the present application. Claims 3 and 10 are amended, and Claims 1, 2, 8 and 9 are canceled by the present amendment.

In the outstanding Office Action, Claims 1-3 and 8-10 were rejected under 35 U.S.C. § 102(a) as anticipated by U.S. Patent No. 6,396,252 to Culpepper et al. (herein "Culpepper"); and Claims 4-7 and 11-14 were indicated as allowable if rewritten in independent form.

Applicant thanks the Examiner for the indication of allowable subject matter.

Further, Applicant respectfully traverses the rejection of Claims 1-3 and 8-10 as anticipated by Culpepper with respect to amended Claims 3 and 10.

Amended Claim 3 is directed to a control circuit that includes, *inter alia*, a first detection circuit which monitors a voltage of the output node and which determines that the first switching element is switched to the off state when the voltage of the output node is low; and when switching the second switching element from the off state to the on state, the control circuit switches the second switching element from the off state to the on state after the first detection circuit determines that the first switching element is switched to the off state. Amended Claim 10 includes similar features.

As a result, a delay time from switching the first switching element to the off state to switching the second switching element to the on state becomes short.

Applicant respectfully submits that Culpepper merely describes a continuous mode and a discontinuous pulse skipping mode. The continuous mode is a normal mode and it has a normal duty cycle determined by the converter's output potential  $V_{out}$ , whereas the discontinuous pulse skipping mode has a duty cycle which is longer than the minimum duty

cycle and shorter than the normal duty cycle. If the inductor current  $I_{IND}$  falls to zero, the controller enters the discontinuous pulse skipping mode from the continuous mode, because the discontinuous pulse skipping mode is more efficient than the continuous mode under the low load conditions.<sup>1</sup> Thus, Applicant respectfully submits that Culpepper does not teach or suggest “when switching the second switching element from the off state to the on state, the control circuit switches the second switching element from the off state to the on state after the first detection circuit determines that the first switching element is switched to the off state,” as recited in amended Claims 3 and 10.

Accordingly, Claims 3 and 10, and claims depending therefrom, are believed to be allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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<sup>1</sup> Culpepper at Abstract and column 7, line 51 to column 8, line 26.